

Appln No. 10/716,822

Amdt date July 5, 2005

Reply to Office action of February 4, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please cancel claims 2 and 3, amend claims 1, 4, 5, 8, 10, 12 and 13, and please add new claims 14-21, as follows:

1. (Currently Amended) A steerable catheter comprising:

an elongated tubular catheter body having at least one lumen extending therethrough and a flexible tubular tip section extending from the distal end of the catheter body and having at least one lumen extending therein in communication with a lumen extending through the catheter body;

a control handle at the proximal end of the catheter body comprising at least one member manually movable between first and second positions;

first and second puller wires extending from the control handle through a lumen in the catheter body and into a lumen in the tip section, said first and second puller wires being attached to each other at their distal ends and being slidably ~~mated~~ interlocked to resist separation along at least the length of the first and second puller wires that extend through the catheter body and tip section, the proximal end of the first puller wire being coupled to a movable member in the control handle and the proximal end of the second puller wire being coupled to a second movable member or a stationary movable member in the control handle;

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whereby movement of the movable member in the control handle coupled to the first puller wire from its first to its second positions results in deflection of the catheter tip.

2. (Canceled).

3. (Canceled).

4. (Currently Amended) A steerable catheter as claimed in claim 1 wherein each of the puller wires [have] has at least one generally flat surface.

5. (Currently Amended) A steerable catheter as claimed in claim 1 wherein each of the puller wires [each have] has a generally rectangular cross-section.

6. (Original) A steerable catheter as claimed in claim 1 wherein the puller wires extend through a tubular sleeve and are maintained in mated relationship by means of the tubular sleeve.

7. (Original) A steerable catheter as claimed in claim 6 wherein the sleeve has a generally rectangular or oval cross-sectional shape.

8. (Currently Amended) A steerable catheter as claimed in claim 1 wherein the puller wires extend through a shaped lumen in the tip section and [[and]] are maintained in mated relationship by means of the shaped lumen.

9. (Original) A steerable catheter as claimed in claim 8 wherein the shaped lumen has a generally rectangular or oval cross-sectional shape.

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10. (Currently Amended) A steerable catheter as claimed in claim 1, wherein the proximal ends of the first and second puller wires are coupled to first and second movable members respectively, each movable members being movable between first and second positions.

11. (Original) A steerable catheter as claimed in claim 1 wherein movement of the first movable member from its first position to its second position results in proximal movement of the first puller wire relative to the second puller wire.

12. (Currently Amended) A steerable catheter as claimed in claim 1 wherein ~~wherein~~ movement of the first movable member from its first position to its second position results in a force being applied to the first puller wire in a proximal direction and a force being applied to the second puller wire in a distal direction.

13. (Currently Amended) A steerable catheter comprising:
an elongated tubular catheter body having at least one lumen extending therethrough and a flexible tubular tip section extending from the distal end of the catheter body and having at least one lumen extending therein in communication with a lumen extending through the catheter body;

a control handle at the proximal end of the catheter body comprising at least two members manually movable between first and second positions;

first and second puller wire pairs extending from the control handle through a lumen in the catheter body and into a lumen in the tip section, each puller wire pair comprising first and second puller wires wherein the first and second puller wires of each puller wire pair are attached to each other at

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their distal ends and are slidably ~~mated~~ interlocked to resist separation along at least the length of the first and second puller wires that extend through the catheter body and tip section, the distal end of the first puller wire pair extending into a lumen in the tip section to a first location and the distal end of the second puller wire pair extending into a lumen in the tip section to a second location distal to the first location, and wherein the proximal end of the first puller wire of each puller wire pair is coupled to a separate movable member in the control handle and the proximal end of the second puller wire of each puller wire pair is coupled to a second movable member or a stationary movable member in the control handle;

whereby movement of the movable member in the control handle coupled to the first puller wire of the first puller wire pair from its first position to its second position results in deflection of the catheter tip at the first location and movement of the movable member in the control handle coupled to the first puller wire of the second puller wire pair from its first position to its second position results in deflection of the catheter tip at the first location.

14. (New) A steerable catheter as claimed in claim 1, wherein the first puller wire comprises at least one notch generally along its length, and the second puller wire comprises at least one rib sized and shaped to slidably interlock with the notch in the first puller wire.

15. (New) A steerable catheter as claimed in claim 13, wherein the first puller wire of each puller wire pair comprises at least one notch generally along its length, and the second puller wire of each puller wire pair comprises at least one rib

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sized and shaped to slidably interlock with the notch in the first puller wire.

16. (New) A steerable catheter as claimed in claim 14, wherein the first puller wire comprises a plurality of notches generally along its length, and the second puller wire comprises a common plurality of ribs sized and shaped to slidably interlock with the notches on the first puller wire.

17. (New) A steerable catheter as claimed in claim 15, wherein the first puller wire of each puller wire pair comprises a plurality of notches generally along its length, and the second puller wire of each puller wire pair comprises a common plurality of ribs sized and shaped to slidably interlock with the notches on the first puller wire.

18. (New) A steerable catheter as claimed in claim 14, wherein each of the at least one notch and the at least one rib has a generally rectangular cross-sectional shape.

19. (New) A steerable catheter as claimed in claim 14, wherein each of the at least one notch and the at least one rib has a generally round cross-sectional shape.

20. (New) A steerable catheter as claimed in claim 15, wherein each of the at least one notch and the at least one rib has a generally rectangular cross-sectional shape.

21. (New) A steerable catheter as claimed in claim 15, wherein each of the at least one notch and the at least one rib has a generally rectangular cross-sectional shape.